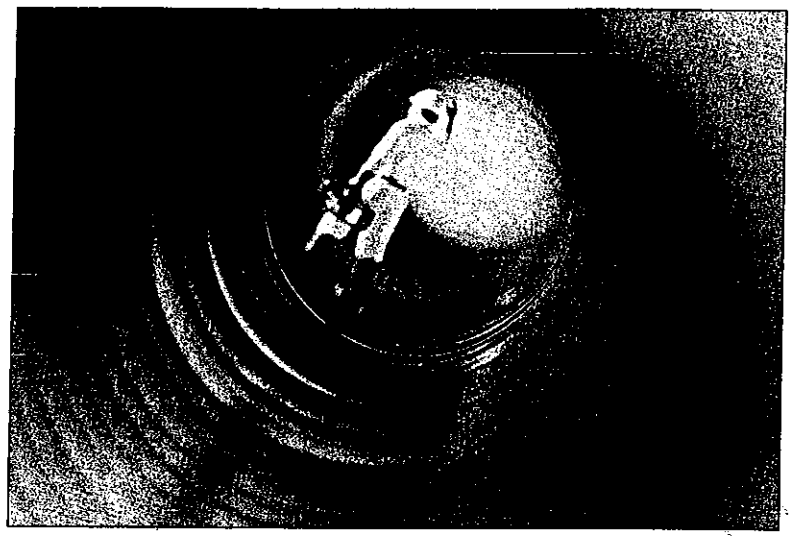
Action Research



Picture a spiral going around and around. Or a long mobile, spinning slowly in the breeze. Action research is far from a linear, lockstep, formulaic process.

By Cathy Caro-Bruce

It's Sarah's turn to talk and the group immediately quiets. Her question has hung out there at each meeting, creating discomfort for those who prefer that the question will just go away. Despite their uneasiness, however, others want to go deeper with what she describes.

She starts, "I'm so embarrassed. I thought I was looking at a system at our school that was promoting student success and instead I found some pretty blatant racism." No one says a word. "I decided to look at the data on our rewards system to find out which kids were at which level in terms of the privileges they could receive. What I found is that all of the white students are at the top and all of the black and poor students are at the bottom. I think I need to change my question about the rewards system and its effect on student success."

Sarah hands out copies of the data she collected and describes the patterns she sees. Group members question Sarah to encourage her to explore the situation from different perspectives, to push her to do the work on her question. Group members are careful not to offer solutions or solve the problem for her.

"Tell us more about the patterns your data show," says one teacher. "I'm curious if the students are aware that this dynamic is occurring," offers another. "How do you think the teachers would respond if you were to share the data with them?" asks a third. Sarah responds to the members' questions — what they are curious about, what they think she can explore to enrich her understanding of the problem. The dialogue is on its way.

As the discussion proceeds, Sarah reflects on how her question may change. "What I really need to look at is *'How can I challenge a rewards system that staff perceive positively, by addressing the inequities and lack of access to opportunities*

by some students?'" The group grew quiet until one participant finally said, "That is so huge. What can we do to help?"

Near the end of Sarah's time, the group facilitator asks her, "So, what's next? What steps will you take before our next meeting?" Sarah answers that she needs to collect more data to help her understand other staff members' perceptions of the rewards system. She says she will put together questions for grade-level teams and wonders if she can e-mail the questions to the group before she conducts the interviews.

Before the group moves on to the next member, Sarah expresses her thanks and says with a huge sigh, "I am so committed to this topic, but I don't think I could do it without all of you."

Sarah's participation in a district-sponsored class, the Race, Class, Gender, Culture, Language, and Learning Action Research Group, is a powerful professional development experience for her and her colleagues. Not only does Sarah learn about her question, but other participants learn about her topic and make connections to their own work.

Overview

Picture a spiral going around and around. Or a long mobile, spinning slowly in the breeze. Or a rare shell whose design conveys circular motions evolving over time. Or even a Mobius Strip. These are all images of action research. Action research is far from a linear, lockstep, formulaic process. While traditional researchers sometimes criticize the openness and flexibility of action research, its circular nature is what makes the process so valuable to teachers.

Action researchers clearly follow steps based on good research techniques, but the process invites the researchers to cycle through earlier phases, as they construct new meaning based on what they find in their data or as their questions change to address what has evolved as most central to them in improving their instruction. Action research continually challenges the researcher to reflect on the process to determine what needs to happen next in the researcher's learning and in the learning process of those who will benefit from the research.

Rationale

Action research is a process through which participants examine their own educational practice, systematically and carefully, using research techniques (Watts, 1985). This professional development experience is different from others because of its foundational principles and how it is implemented.

- In contrast to some traditional types of professional development that diminish teacher efficacy by viewing them as empty receptacles to be filled with knowledge and skills, action research recognizes that teachers can identify topics important to their teaching, can examine their own work using research techniques, and can explore how to become more effective instructional leaders. Teachers are at the center of this work — their thinking, their questions, their desire to improve.
- Action research is seen as a different genre of research because it is grounded in the real world of the classroom. It balances a classroom culture that is personal, contextual, open-ended, and ever-changing with a research culture that is rigorous, structured, and systematic.
- Action research is an evolving form of inquiry that affects the researchers and the contexts in which they work. While teachers may start with a specific question, as they collect and analyze data and learn from their analysis, the question may evolve into one that is more aligned with classroom/school issues and the researchers' needs.
- The "action" in action research implies that, throughout the process, the researchers will take actions and implement improvements based on what they learn.
- Action research recognizes that educators need time to reflect on their work and focus on how to be more effective. They must do this in a safe and supportive environment away from day-to-day classroom activities.

Some reasons teachers participate in action research include:

- **Individual progress.** Action researchers are motivated to better understand and improve their teaching and the classroom environment. They often focus on a particular aspect of their teaching or of student learning that is challenging them.
- **Student progress.** Action researchers want to know more about how to improve student learning.
- **Knowledge production.** Action research promotes producing and sharing new knowledge that benefits other educators.
- **Social change.** Action research pushes teachers to ex-

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www.nsdc.org/library/strategies/actionresearch.cfm. A section of the National Staff Development Council web site with links to articles, books, and other web sites on the topic of action research.

amine practices that promote or are barriers to equity and reinforces the principles of democratic decisions in our schools.

- **Personal meaning.** Action research is inherently rewarding as teachers search for connections, value, and significance in understanding their work (Zeichner, Marion, & Caro-Bruce, 1998).

Action research work also supports what we know about implementing change initiatives — schoolwide or individually. Part of action research involves reflection. Teachers who reflect benefit students because they question their ideas, pilot them, take part in ongoing critical dialogue, and look thoughtfully at their own instructional practices. Action researchers are more likely to take action on their problem or area of study because they reflect with colleagues on data from a variety of sources.

Steps

STEP 1: DECIDE WHETHER ACTION RESEARCH WILL BE DONE WITH A GROUP

At any step in this process, action researchers can gain much if they meet informally, in a small group, with other action researchers in the school or district or outside the district. At the beginning of the chapter, Sarah was meeting with other action researchers in a district-sponsored class facilitated by a district's staff developer.

Individuals also can form a small group without any formal facilitation or class time. A monthly meeting after school — coffee optional — may help action researchers as they share where they are in the process, ask questions of their peers, and invite comments and feedback. Without support, researchers may get bogged down in the process and be less effective.

STEP 2: FIND A FOCUS

"What's keeping you awake at night?"

"What are you curious about?"

"If you could change one thing about your practice, what would it be?"

These are often the entry points that drive action researchers to focus on an area and begin to narrow their area of study. There is no right way to have a question emerge. Researchers, who may include teachers, principals, support staff, or other education stakeholders, can develop a question from broad categories:

- **Student outcomes:** Achievement, assessment, attitude, learning, relationships, connection to school/peers. For example, how can I help students better assess what they are learning?
- **Instructional practices:** Strategies to meet the needs of individuals or groups of learners, reflective practice. For example, how well do the reading strategies I use in my teaching help students read in the content area?
- **Systems/structures:** Behavior/discipline, special education inclusion model, team structures, decision making, equitable access to all curricula, new programs and practices, strategies to improve service delivery. For example, how do the systems we have in place in school prevent access to higher-level classes for all students?
- **Climate:** Attitudes, relationships, safety, connection to school. For example, how do the beliefs our students have about their safety in school impact their sense of belonging?
- **Parents/family:** Connection to school, decision making, support to families. For example, what are the most effective ways to communicate with parents and families? (See Handout 1 in the Chapter 5-Action Research file on the CD-ROM.)

The action research question becomes the centerpiece of the work. The question is discussed at monthly meetings, including how the question has changed over time, what data have been gathered and analyzed to answer the question, what actions a researcher is taking to answer or further reveal the question, and what new questions are emerging from the initial one.

Good action research questions are:

- **Significant:** Focusing on teaching and learning practices that could affect students' achievement or behavior;
- **Manageable:** Can be done within the researcher's time constraints;
- **Contextual:** Embedded in the researcher's daily work;
- **Clearly stated:** Accurately conveying the focus and scope of the research;
- **Open-ended:** Generating a broad range of insights rather than trying to prove a specific point; and
- **Self-reflective:** Focusing on the actions or practice of the researcher (St. Louis Action Research Evaluation Committee, 1998).

Types of Action Research Questions

Teacher researchers' questions often fall into categories that demonstrate a range of possibilities and challenges.

To improve practice:

- How can I develop and assess an understanding of "mathematical equality" in 1st graders? (1st-grade teacher)
- How can I use graphic organizers more effectively in my teaching? (3rd-grade teacher)

To better understand a particular aspect of practice:

- How will implementing our full inclusion model affect how students perceive themselves and others as learners? (Cross-categorical teacher)
- What effect do varied Shakespeare activities have on high school students' attitudes toward Shakespeare? (English teacher)
- How can forming academic peer groups be used to reinforce positive attitudes of academic achievement in the face of negative peer pressure? (Principal intern)

To better understand one's practice in general:

- How can school nurses better help teachers understand and respond to the needs of students with asthma? (School nurse)
- What strategies motivate struggling children to become active participants in the classroom community and feel successful as learners? (4th-/5th-grade teacher)

To promote greater equity:

- How can the science department and special education department heterogeneously group students with a wide variety of learning needs and make it a successful experience for the students and staff? (Biology teacher)
- How does a sense of belonging affect academic achievement? (Resource teacher)

To influence the social conditions of practice:

- How can I increase staff buy-in for a schoolwide bullying and harassment prevention program? (Violence prevention coordinator)
- What do we need to do to proportionately support and address academic and behavioral needs in our cross-categorical, inclusion model? (Cross-categorical teacher)
- How can our school develop a decision-making structure that incorporates all staff members fairly, and what can my role be? (Librarian)

The critical question for researchers is how manageable the question is given the scope of the topic. The further away from the researcher — that is, the broader the focus — the more difficult it is for researchers to know if what they are studying and learning is making a difference.

STEP 3: DEVELOP AN ACTION PLAN

The plan will change — it should change — but this stage pushes teachers to think like researchers. It prevents researchers from impulsively giving a survey to the staff members at the school, for example, when other steps need to be taken first. These questions will influence the development of a beginning action plan:

- What do I want to know? Why do I want to know this? Who can help me learn about this topic?
- What are some possible sources of data collection? Students? Staff? Parents? Team members? Administration?
- Who can review the questionnaire I develop? The interview questions I design? Who can help observe students?
- Do I want to do a literature review and find out what others have learned about this topic?

Once teachers begin to learn from their data — and as new questions, ideas, and understanding surface — the plan can be revised. (See Handout 2 in the Chapter 5-Action Research file on the CD-ROM.)

At this point, action researchers can meet either formally (as in a class) or informally to get feedback on their plans.

STEP 4: COLLECT DATA

Think broadly. Think deeply. Think about multiple perspectives. Action researchers internalize these messages throughout their data collection journey.

The journey starts simply: What do you want to learn? Why do you want to learn it? When, where, and how will you collect the data? Many action researchers do not have a strong background in data collection and analysis, so incorporating the specifics of how these steps will be accomplished is essential to moving the researcher forward. (See Handout 3 in the Chapter 5-Action Research file on the CD-ROM.)

Action researchers use both qualitative and quantitative research methods, including interviews, portfolios, surveys/questionnaires, field notes/observation records, interviews, video recordings, student work, discussions, audiotapes, and case studies. They may also include pre- and post-assessments, standardized tests, or district tests.

Data are collected and analyzed throughout the process. Action researchers learn about *triangulation* — collecting data from more than one source, at more than one point in time — to increase the validity of what the researcher is learning. Triangulation helps the researcher move from using intuition to using real information to drive decisions. Researchers also are encouraged to select data sources that will provide them with *breadth* by soliciting multiple perspectives, with *depth* by asking questions that will go beyond the surface, and with *corroboration* by looking at other data sources such as student work or school practices that confirm what they are learning.

While action researchers often fall into the trap of doing things they think they are supposed to do to make their projects legitimate research, the facilitator and group consistently ask the teachers *why* they are working on a particular action and what they hope to learn. Staying true to the purpose of the research drives action researchers to develop a data collection process with inquiry, curiosity, and problem solving at its core.

Collecting the data can often become far more complicated than it seemed initially, so this is a time when feedback from colleagues may prove essential. Whether meeting formally in a class or informally, action researchers can give each other feedback about their data collection processes.

STEP 5: ANALYZE THE DATA

Sorting through all the data they have collected can be a major task for action researchers as they synthesize what they have learned. Many action researchers enjoy the creativity in this part of the process. They develop elaborate systems using colored dots and flags, sticky paper, and highlighters. During this stage, researchers look for themes, patterns, and big ideas. They code what they see in their data and narrow down the themes into something manageable. They find sub-themes among the larger areas. They write continuously as new ideas and connections surface, and they construct meaning by bringing different sources of information together in new ways. Analyzing data involves noting how frequently certain ideas show up, as well as highlighting those powerful, interesting, and unusual comments that have potential to influence future thinking and directions.

This is a messy time. It is also a stimulating and heady time as the researcher brings disparate pieces together into a greater whole. (See Handout 4 in the Chapter 5-Action Research file on the CD-ROM.) Peers can help action researchers see themes they may have missed or holes in their logic as they analyze data. They can also help celebrate the potential power of the research.

STEP 6: WRITE ABOUT THE WORK

While some action research programs do not emphasize writing up the process and findings, many action research programs build in this phase because the developers of action research programs understand the power of writing. Writing pushes researchers to a new level of understanding as they have to communicate what they have learned. For some, especially those who haven't written a paper in a long time, writing can feel very challenging. Once they have finished writing, however, teachers often describe how rewarding it was.

Writing primarily gives the researcher a chance to de-

scribe the experience and what he or she learned. The paper also allows the larger community of educators to learn from their colleagues and potentially improve their own learning environments. If teachers believe that their voices can influence policy and they have access to forums that can guide educational directions, then it is critical that they write about their findings. Action researchers are simply asked to tell the story in their reports. Components can include:

- **A description of the problem, focus area, question.** Why was it a question for you?
- **A description of the context in which this study occurred.** What background information would be helpful in understanding why this question was important to study?
- **A description of actions the researcher took to learn about the topic.** What did the researcher do and why?
- **An explanation of the research methods and data collection sources used.** From where and from whom did the researcher gather data?
- **A literature review.** If the researcher did a literature review, what was learned that influenced the researcher's actions?
- **Data analysis.** What did the data show? What themes, patterns, and findings emerged?
- **Recommendations.** What new actions will the researcher take based on what was learned? What new questions does the researcher have?

As they write, action researchers may want to share their writing with peers. If they have been meeting formally, their facilitator may divide them into reading groups, one group for each paper. If they have been meeting informally, action researchers can ask the group to listen to parts of their writing and give feedback. Peer researchers in an informal group can pair up to garner deeper feedback.

STEP 7: PLAN FOR FUTURE ACTION

The "action" in action research is central to this professional development experience. Based on their findings, researchers determine what they will do differently in their classrooms or what might happen differently on their teams or in their schools. Action researchers look for ways to share what they've learned with colleagues, their principal, or with special interest groups. This step is not the end but the beginning of the cycle. (See Handout 5 in the Chapter 5-Action Research file on the CD-ROM.)

ON THE CD-ROM

The handouts for this chapter are available on the CD-ROM that accompanies this book.

1. Starting points
2. Action plan
3. Data collection and analysis
4. Process for analyzing data
5. Analysis leading to action

Variations

School districts throughout the country have embraced action research and made it their own.

Schoolwide research. Some districts have implemented schoolwide action research, where the entire staff studies a school issue or problem of interest to everyone. Action research has great potential to affect a school's practices when administrators (both building and district level) and teachers themselves support a schoolwide initiative. When developing this kind of program, it is essential that teachers own what they will study, how they will study it, how they will share findings, and what will happen as a result of what they've learned.

Individual research. Other districts have supported individual action research. Individual teachers work on a topic of interest to them in their own classrooms. While it may be a powerful experience for the teacher, the teacher may not have the support, vision, or know-how to extend the effects of the work beyond his or her own classroom.

Collaborative research. Many districts have implemented collaborative action research. Groups of teachers, principals, and/or support staff come together around topics that are priorities for the school or district. Group members may be from the same school or they may represent schools from around the district. Sometimes, these groups can earn graduate level credits or are paid. The results of collaborative research are likely to be applicable in a variety of settings.

Critical Elements

Group work. While school districts structure action research differently to meet their needs, having teachers involved elevates this experience for the researchers. Teachers benefit enormously from participating in a professional learning community where everyone is committed to making changes that will enhance their own and students' learning.

Ground rules. Groups must adhere to routines and rituals that protect the group members as they discuss challenging issues. Rules include giving all group members *time to reflect and talk about their work;* making sure the *action researchers own their questions* (other group members don't try to solve the problem for them); and having group members *reflect on the inquiry process* as a way to ensure that it is providing as much value as possible to their professional learning and growth. The group helps members when they are stuck. The group cheers the successes of colleagues. The group cares deeply about each member and each person's learning.

Conclusion

Sarah knew she had questions about the rewards system at her school. She had some beginning ideas that jumpstarted her initial data collection. Her question wasn't well formed, but experiences and observations of students led her to generate some ideas that moved her along to do some initial data collection. Sarah's revised question, *How can I challenge a rewards system that is perceived by staff as positive, by addressing the inequities and lack of access to opportunities by some students?* met the criteria for a good action research question. Collecting data helped her continue to refine her thinking, define more clearly what she was learning, and helped her determine what actions to take.

By the end of the school year, Sarah's journey had just begun. After interviewing six staff members who represented different established teams in the school, she learned that most of them were supportive of the system and weren't aware of which students were at each level of privilege. She designed a survey for all staff and facilitated two student focus groups. Many issues surfaced from both staff and students, the most critical being a look at institutionalized racism throughout the school. In late spring, Sarah shared her findings with staff, and the school's newly formed Equity Team began to plan for the next school year. The Equity Team's goal was to involve the entire school in thoughtfully discussing practices that kept some students from having equal access to a comprehensive learning and educational experience. While Sarah's question began as a personal need to understand the implications of a school practice, her action research led her to examine a system that needed to be challenged.

One voice, one study, one persistent teacher. One journey can make a tremendous difference in the lives of our children.

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